



Photo courtesy of Connie Mutel

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The Stories We Live By: Writing Climate Change*

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When I was a youngster, my grandmother perched me on her knee and fed me stories about her childhood on a Wisconsin farm in the late 1800s. She and her sisters strolled in nearby woodlands in springtime, gathering bundles of wildflowers and wild herbs to bring home to their mother. Her son, my father, filled me with descriptions of his own 1930s rambles across Wisconsin farm fields—where he and his teenaged buddies startled large flocks of feeding larks who rose to trill from the heavens. Add to these tales of nature's abundance the sensitivities of my mother, who showed me warblers hidden in the bush, beetles and flowers too small for most to notice, and the beauty of snow layering the cedar branches outside our front window, and it's not surprising that I became a teller of stories of our natural world, using words to detail nature's elements, complexities, and wonder.

I have written about nature and the environment for forty years now, completing books and articles on natural history, restoration ecology, and conservation issues. In 2010, while editing a major report on climate change in Iowa¹, I was forced to dig into the details of global warming. For the first time I came to understand how, if left untended, the burning of fossil fuels and resulting inexorable rise of global temperatures have the potential to destroy the civilized world as we know it, dragging along perhaps half of the earth's species and trashing dependable, predictable planetary functions as it goes. Astounded by the unbelievable possibilities of climate change's relentless advance and stunned by humanity's apparent race toward the cliff, I felt I needed to do something about this unfurling crisis. For me, that

**References listed in Endnotes*

meant writing about it.

My book, *A Sugar Creek Chronicle: Observing Climate Change from a Midwestern Woodland*, will be published early in 2016. The interim period between manuscript submission and book release is usually a pleasant, relaxing time of anticipation, a period to lean back and enjoy a sense of accomplishment. But instead I find myself wondering how I managed to complete a treatise on this devastating and often overwhelming subject. How did I persevere?

My book started out, as many do, with contemplations of goals, scope, readership, and structure. Decisions about some of these matters, such as my target audience and goals, were immediately evident. I wanted a book for the general public, people who are broadly concerned about climate change but who may not understand what it is, how it works, or its unparalleled importance. Although I would be writing for non-scientists, I knew that I would need to dispel climate-change myths already engrained in many Americans' minds—feelings of dread and powerlessness and unspoken tales of hopelessness, perhaps of the unreality of climate change, tales based on fear, misinformation, and denial. My goal was to replace those messages with considerations of hopeful future possibilities and active involvement.

To do so, I turned to the comfort we feel when immersing ourselves in stories of small-scale worlds, places where actions and consequences are immediate and manageable. What if, I wondered, what if I focused my book on one minuscule section of Earth's surface—the 16-acre woodland where I live—and explained the growth of oaks, the turning of leaves, return of migratory swallows and warblers, the heat and humidity that sweep north from the Gulf of Mexico in the summer, the Arctic storms that force their way into our lives in winter. All are predictable processes that could dissolve with unfettered climate change. Could the woodland meanders and concerns of a friendly, observant grandmother (me) become a doorway to caring about changing climate around the world? And what if I also revealed my own struggles with cancer, presenting

them as a metaphor for society's struggles with climate change? They both, after all, involve insidious increases of invisible substances that can kill us. Might this metaphor beckon readers to adopt deeper and more caring involvement?

Using these thoughts as fodder, trusting the strength of words and stories, and fed by my love of writing, I moved forward.

The result became a text that explores climate change within a double-wrap of stories. A year-long journal—the book's core—traces my nature ramblings as well as that year's weather vagaries. Interspersed memoir chapters include tales of both my lifelong search for wholeness and explorations of global environmental change since the mid-1900s. Explanations

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of climate-change science are spread throughout the text. I spent considerable time selecting the most essential concepts and then working to make these science segments straightforward so that readers could float through them, learning as they go, before becoming impatient with

dry facts. I took these chapters, bookended them with introductory and concluding chapters, and a rough book manuscript was born.

This summary makes the book-creation process sound simple. But converting a rough draft into a cohesive treatise is never easy. I invested many months in massaging my original mix of Midwestern natural history, personal memoir, weather descriptions, and climate science into a flowing, unified whole. I wrote and rewrote, ordered and reordered, tossing superfluous information as I went. Often I became overwhelmed by the complexity of the subject matter and the number of topics I was trying to merge. Sometimes my direction clouded. If I had not been practiced in writing, I might not have finished. But I had been at this point before. I knew that a book consists of themes that are ordered into chapters, that chapters are broken into paragraphs, that paragraphs consist of sentences, and that if I wrote one sentence at a time, I would eventually get to the end. Somehow, even when the vast convolutions of climate change were too complicated to handle, I could manage

a few sentences on its likely impact on agriculture or a paragraph on Arctic melting.

As ideas and words became better ordered and started flowing both logically and artistically, I entered the stage of book-writing that I relish – the time when all elements come together so that the whole is greater than the sum of the parts. There is a magic in this final stage a time when you can feel the tens of thousands of carefully sequenced words and hundreds of paragraphs gel into a unified whole that takes on a life of its own, as if the creation is no longer a product of its creator, but rather an entity with its own spirit and direction, its own life force.

This is the logistical story of how I wrote my book. But another narrative bubbled underneath my three years of writing, a narrative of what the subject matter

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did to me, for climate change has been the most deeply disturbing topic I have ever addressed, and writing about it exacted a high emotional toll.

The difficulty lay partly in the technical complexity of climate change and its vast ramifications. Studying and processing this material required a great deal of energy and intense work. But I had written about complex subjects in the past. I knew that fortitude would get me to the end.

Much more upsetting was my understanding that to write well about climate change, to take it beyond a list of facts and make it come alive for the reader, I had to become intimate with the climate-change process. To focus on its treacherous proclivities for months on end, welcome it as my bedfellow, think about it during the day and dream about it at night. Rise in the dark to scratch down ideas and phrases that entered my sleep. Sit down at my computer first thing in the morning to draft ideas fresh from my subconscious. I needed to obsess about the climate-change process and let it permeate my inner recesses.

My obligatory association with this devilish process—which is global and permanent, unthinkable, in-

escapable, and self-compounding, a process that will touch everyone and affect every aspect of global function and human life as it carries us into a new reality—my necessary closeness to climate change wore on me from the start. I resented my need to learn more than I wanted to know about the possible disappearance of all that I loved. I became obsessively hyper-alert, tying everything I perceived—the atmosphere’s increasing moisture and energy, the greater floods and more severe storms we were having—to climate change. A sadness about our planet’s future pervaded my every thought and action, a deep state of grief and quiet despair. I mourned the possible uncertainties and miseries of future people, mentally ticking these off as I wrote: new health problems, uncertain provision of food and water, growing numbers of environmental refugees, commu-

nities struggling to recover time after time from extreme floods, droughts, and winds. At times, I believed that our ongoing business-as-usual lifestyles were a sign of societal insanity, and I felt that insanity penetrating my spirit. At other times, I grew jealous of people who seemed blissfully unaware of how each drive to the grocery store was altering climate processes.

By the middle of the project, I realized that I needed help with my growing depression. I sought a counselor who became instrumental in guiding my efforts, reminding me of my goals and discussing techniques for reaching them. When I complained about my sadness over the planet’s future, she named my grieving process and gave it a new direction. “Part of your writing job is to work through the grief for your readers and get to the other side. That’s your duty as an author—and no one can do it for you. If you want your readers to envision hope-filled solutions, you need to show them your own new-found hopefulness.” For whatever reason, that thought energized my efforts.

Fighting my overwhelming sense of doom became easier as I kept going. Again, my counselor guided me. One dark day she asked, “What gives you hope, what fills you with joy?”

“Being in nature,” I answered. “Walking in the woods. Watching the sun rise and set through the trees. Staring at their branches as they wave in the wind.”

“If you want to write a hopeful book, you need to give your book and nature equal time,” she suggested. “For every hour you are reading, processing, writing about climate change, you need to spend an hour enjoying the natural world.” To this recipe, I added my own time-tested practices for retaining mental balance: meditation, prayer, yoga, talking with friends, exercise, escaping into novels, taking time off and immersing myself in our grandchildren’s lives and antics.

As my writing progressed and I started reading of ways to address climate change, my sense of hope increased. I realized that many European countries are determined to become carbon-neutral by mid-century or before—that is, to cut their net carbon emissions to zero. Corporations like Walmart, Google, Microsoft, and others are adopting similar initiatives, their dedication fueled by recognizing the immense impacts and high costs of climate change’s escalating expression. Engineers have designed a doable roadmap for carbon neutrality by 2050 specific to each state in the U.S. Many nations, including China, are striving to reduce fossil-fuel emissions through placing a price on carbon emissions. Some U.S. states, cities, and near-neighbors are doing the same—California, New York, Massachusetts, British Columbia, and Mexico, to name a few. A sprinkling of cities in the U.S. and elsewhere are even attempting to become “carbon-negative,” to absorb more net carbon dioxide than they produce.

All these activities had been moving forward while I was sitting at my desk feeling isolated and overburdened. But I had been far from alone. Thousands of creative, dedicated, and intelligent thinkers and doers were working hard to address the largest problem ever faced by human civilization, walking together into the future, extending helping hands to those who cared enough to act.

As I continued to read more about positive initiatives and my mental state improved, I came to believe a widely accepted truth: we currently have the technological and economic capability to switch to renewable energy sources that will help slow and then halt rising

temperatures, thus defusing climate change’s worst expressions. If we applied our willpower and skills in a focused and dedicated manner, by the century’s end, we could be seeing a decline in the global average temperature. But if fossil-fuel emissions continue to follow their existing trend, models predict a 6-10°F global average rise by that time, well beyond the safe level, a rise that likely would activate multiple tipping points and release unimaginable climatic turmoil.

I realized that curbing climate change would not be easy; it would demand immeasurable political will, international cooperation, societal change, and hard work. “Might we change direction?” I would whisper to myself, thinking of the dedication and cooperation of peoples and nations that would be required. “Not likely, but not impossible. We still have choices. Hope remains.” Repeating this mantra, focusing on nature’s resilience, and believing that my book could be one small part of a global push toward health and sanity, I propelled myself toward my manuscript’s finish line.

I completed my manuscript a month ago. I see now that doing so has been my attempt to countermand climate chaos. It also has become my way of looking my grandchildren in the eye and believing that I have done my best to will them a hopeful future. My sense of heaviness remains, as does my exhaustion, but these can be explained as normal responses to completing a large writing project.

What’s not normal are my brittle, fragile, dry feelings, as if my body were emulating the droughts that climate change will exacerbate. Feelings such as these advise me that now is the time to care for myself and to rest. To give myself time to recover, as if I had just returned from a lengthy expedition to an unknown and distressing land. I need to be patient with myself. To believe that I will move on, to trust that joy and lightness will return, even as I remain aware of the climate dangers we face. To accept that I can simultaneously hold sorrow and joy, grief and hope within me, and by doing so I can remain active in countermanding a danger-ridden future.

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I still think constantly about climate change, and so I'm not surprised when stories of the future float uninvited through my mind. I envision the woodland where I live losing its sanctity and wholeness as climate change progresses and the chickadees and nuthatches leave in search of more hospitable homes or simply disappear.

But then my mental story morphs, and I tell myself that life—that miraculous force that transforms inanimate objects into sentient beings that breathe, move, reproduce, and communicate—will remain. The intricate, self-sustaining interactions of complex ecosystems may unravel. But perhaps, as long as birdsong, movement in the bush, and breezes through flowering plants remain, the peace of a summer morning will not disappear. Or so I choose to believe.

And where will humans be in this picture? What stories will future grandmothers be telling? Will they perch grandchildren on their knees, consider the violent storms and punishing heat waves that have become commonplace, and begin by saying, "Once upon a time, long ago when I was young, a beautiful planet held its offspring, fed them in abundance, and provided safe places for them to live...?"

Or will future grandmothers talk of times when climate challenges seemed insurmountable, but these challenges were handled with wisdom and dedication to a nurturing future? Will grandmothers expound upon how today's peoples and their governments pulled together to replace fossil fuels with renewable energy sources, in this way successfully holding the atmosphere's energy in check?

Now, a month after handing my manuscript to my publisher, I am spent. But when my energy returns, as I know it must, I want to return to a life focused on passionate defense of our planet. I ask myself how I can do this, even as I think of telling stories—not stories of the destructive weight of climate change, but rather of the amazing beauty, resilience, persistence, and healing powers of this orb we stand upon. Stories of a planet that yearns for integrity and wholeness, that strives to create and sustain life, that constantly calls us home. Stories of possibility and hope.

Perhaps my stories could join with those of others to reshape assumptions about how we live and act on our planet and what we demand of it. And these

assumptions in turn might create alternative visions of our planet's and our own futures. For surely we will need such visions in coming years as we negotiate uncharted courses. Surely we will need new visions to guide our yearnings and actions as we move into an uncertain future and struggle to redeem our species. 

Endnotes

MUTEL, “THE STORIES WE LIVE BY”

¹ Iowa Climate Change Impacts Committee, Climate Change Impacts on Iowa 2010, 1/1/2011, Report to the Governor and the Iowa General Assembly. Available online.

- Executive Summary: <http://www.water.iastate.edu/sites/www.water.iastate.edu/files/iowawatercenter/Climate%20Change%20Executive%20Summary.pdf>
- Complete Report: <http://www.water.iastate.edu/sites/www.water.iastate.edu/files/iowawatercenter/Climate%20Change%20Impacts%20on%20Iowa%202010.pdf>